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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/705,188

11/10/2003

Yining Deng

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04/15/2009

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EXAMINER

AN, SHAWN S

ART UNIT

PAPER NUMBER

2621

NOTIFICATION DATE

DELIVERY MODE

04/15/2009

ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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Office Action Summary	Application No. 10/705,188	Applicant(s) DENG ET AL.	
	Examiner SHAWN AN	Art Unit 2621	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 09 January 2009.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 2-12 and 14-27 is/are pending in the application.
4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 16-24 is/are allowed.
- 6) ☒ Claim(s) 2-12, 14, 15 and 25-27 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Amendment

1. As per Applicant's instructions as filed on 1/09/09, claims 2, 8-10, and 25-27 have been amended, and claims 1 and 13 have been canceled.

Response to Remarks

2. Applicants' Remarks as filed 1/09/09 have been fully considered. The Applicants present arguments of which the cited prior art references do not teach: A) "while", since the Office action fails to establish that the "while" limitation is obvious given the cited art; and B) it would not be obvious to modify Hoover in accordance with the teachings of Mancuso to meet the in-camera combining limitation.

However, after careful scrutiny of the cited prior art references, Applicant's remarks/arguments with respect to the amended claim 8, and the A) and B) (as above) are considered moot in view of the following new ground(s) of rejection.

Claim Rejections - 35 USC § 101

3. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

4. Claims 2-7, 11-12, and 14-15 are rejected under 35 U.S.C. 101 as not falling within one of the four statutory categories of invention.

Supreme Court precedent¹ and recent Federal Circuit decisions² indicate that a statutory "process" under 35 U.S.C. 101 must (1) be tied to another statutory category (such as a particular apparatus), or (2) transform underlying subject matter (such as an article or material) to a different state or thing. While the instant claim(s) recite a series

¹ *Diamond v. Diehr*, 450 U.S. 175, 184 (1981); *Parker v. Flook*, 437 U.S. 584, 588 n.9 (1978); *Gottschalk v. Benson*, 409 U.S. 63, 70 (1972); *Cochrane v. Deener*, 94 U.S. 780, 787-88 (1876).

² *In re Bilski*, 88 USPQ2d 1385 (Fed. Cir. 2008).

Art Unit: 2621

of steps or acts to be performed, the claim(s) neither transform underlying subject matter nor positively tie to another statutory category that accomplishes the claimed method steps, and therefore do not qualify as a statutory process. For example, claims 2 and 11 pertain to a method for generating a panoramic image directed to a series of steps drawn for capturing a series of image frames ..., capturing a first image frame ..., capturing a second image frame ..., and combining the image strips into the panoramic image without any ties to a particular apparatus/structure. Since dependent claims 3-7, 12, and 14-15 are directed to further limitations based on independent claims 2 and 11, claims 2-7, 11-12, and 14-15 as a whole do not fall within the statutory classes set forth in 35 U.S.C. 101.

¹ *Diamond v. Diehr*, 450 U.S. 175, 184 (1981); *Parkerv. Flook*, 437 U.S. 584,588 n.9 (1978); *Gottschalk v. Benson*, 409 U.S. 63, 70 (1972); *Cochrane v. Deener*, 94 U.S. 780,787-88 (1876).

² *In reBilski*, 88 USPQ2d 1385 (Fed. Cir. 2008).

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 8-10 and 25-27 are rejected under 35 U.S.C. 103(a) as being unpatentable over Mancuso et al (6,717,608 B1).

Regarding claim 8, Mancuso et al et al discloses a method for generating a panoramic image, comprising:

a camera (Fig. 1, 100) capturing a series of image strips/frames/pictures of overlapping images (Fig. 3) each encompassing a sub area (Fig. 3; ab, bc, cd) of an image sensor (Fig. 1, 106) used to sample the panoramic image, while the camera

Art Unit: 2621

(100) that contains the image sensor (106) is being panned (Fig. 23; col. 14, lines 45-51; col. 2, lines 51-53);

the camera (100) combining the image strips into the panoramic image and obtaining the series of image frames (abs.; Fig. 1, 122; Figs. 3-4).

Mancuso et al does not explicitly disclose combining the image strips into the panoramic image while the series of image frames is being obtained. However, Mancuso et al discloses the camera combining the image strips into the panoramic image, and obtaining the series of image frames as discussed above. Therefore, the only specific claim limitation missing from the above claim limitation is the word “while”. Based on a dictionary definition, a word “while” is nothing more than a conjunctive word to describe “at the same time or during the time a task being done”. Therefore, if the above claim limitation is missing solely the word “while”, then the recited word “while” as having only consideration for novelty aspect of the claim limitation, is considered as lacking any patentable weight, since the word “while” is the only specific claimed limitation/word not disclosed by Mancuso et al, and defines to be nothing more than a conjunctive word, and obviously technical aspect of a novelty feature doesn’t exist within the claimed conjunctive word “while”.

Moreover, the concept of performing A while perform B is conventionally well known in the art such as parallel processing and/or multi-tasking. Therefore, since Mancuso et al clearly discloses combining the image strips into the panoramic image, and obtaining the series of image frames, it would have been considered contentiously obvious to one of ordinary skill in the art to derive/visualize for the camera to combine the image strips into the panoramic image while obtaining the series of image frames, since it would be very logical and time saving steps (since performing two tasks simultaneously such as in conventional parallel processing and/or multi-tasking) to follow in obtaining/generating a panoramic image (motivation emphasized using conventional scheme of parallel processing and/or multi-tasking).

Regarding claim 9, Mancuso et al teaches the image strips having a set of dimensions that are selected to maintain an overlap in the image strips (Figs. 3 and 6).

Regarding claim 10, Mancuso et al teaches adjusting/correcting the dimensions to maintain the overlap (Fig. 7; col. 9, lines 21-50).

Regarding claim 25, Hoover et al discloses a camera, comprising:

Image sensor (Fig. 1, 106) capturing a series of image strips/frames/pictures each encompassing a sub area (Fig. 3; ab, bc, cd) of the image sensor while the camera (Fig. 1, 100) pans (Fig. 23; col. 14, lines 45-51; col. 2, lines 51-53); and

a processor combining the image strips into the panoramic image and obtaining the series of image frames (abs.; Fig. 1, 122, 124, 126; Figs. 3-4).

Mancuso et al does not explicitly disclose combining the image strips into the panoramic image while the series of image frames is being obtained. However, Mancuso et al discloses the processor combining the image strips into the panoramic image, and obtaining the series of image frames as discussed above. Therefore, the only specific claim limitation missing from the above claim limitation is the word “while”. Based on a dictionary definition, a word “while” is nothing more than a conjunctive word to describe “at the same time or during the time a task being done”. Therefore, if the above claim limitation is missing solely the word “while”, then the recited word “while” as having only consideration for novelty aspect of the claim limitation, is considered as lacking any patentable weight, since the word “while” is the only specific claimed limitation/word not disclosed by Mancuso et al, and defines to be nothing more than a conjunctive word, and obviously technical aspect of a novelty feature doesn’t exist within the claimed conjunctive word “while”.

Moreover, the concept of performing A while perform B is conventionally well known in the art such as parallel processing and/or multi-tasking. Therefore, since Mancuso et al clearly discloses combining the image strips into the panoramic image, and obtaining the series of image frames, it would have been considered contentiously obvious to one of ordinary skill in the art to derive/visualize for the camera to combine the image strips into the panoramic image while obtaining the series of image frames, since it would be very logical and time saving steps (since performing two tasks simultaneously such as in conventional parallel processing and/or multi-tasking) to

follow in obtaining/generating a panoramic image (motivation emphasized using conventional scheme of parallel processing and/or multi-tasking).

Regarding claim 26, Mancuso et al teaches the image strips having a set of dimensions that are selected to maintain an overlap in the image strips (Figs. 3 and 6).

Regarding claim 27, Mancuso et al teaches adjusting/correcting the dimensions to maintain the overlap (Fig. 7; col. 9, lines 21-50).

Allowable Subject Matter

7. Claims 2-7, 11-12, and 14-15 (contingent upon overcoming 35 U.S.C. 101 rejection as discussed above) and 16-24 are allowed as previously discussed in the last Office action as filed on 10/14/08.

The prior art of record fails to anticipate or make obvious the novel features as previously discussed in the last Office action as filed on 11/29/07.

Accordingly, if the amendment can be made to cancel rejected claims and overcome the 35 U.S.C. 101 rejection as above, then the application would be placed in a condition for allowance.

Conclusion

8. Any inquiry concerning this communication or earlier communications from the Examiner should be directed to *Shawn An* whose telephone number is 571-272-7324.

9. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Art Unit: 2621

10. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

/SHAWN AN/

Primary Examiner, Art Unit 2621

4/11/09